WHAT IS CLAIMED IS:

1. A surgical instrument positioning system, comprising:

a pair of supports;

a cross member extending between the supports; and

at least one surgical instrument holder suspended from the cross member, wherein the cross member has a curved center section which spans between the supports and has opposite curved ends which are disposed in planes which are perpendicular to the curved center section.

2. The system of claim 1, wherein the surgical instrument holder is positionable along a length of the curved center section of the cross member.

3. The system of claim 2, wherein movement of the surgical instrument holder along the length of the curved center section of the cross member results in rotation of the surgical instrument holder about a point disposed on an axis passing through centers of curvature of the opposite curved end portions of the cross member.

4. The system of claim 1, wherein the surgical instrument holder positions a surgical instrument in a plane along which an axis extending through centers of curvature of the opposite curved end portions of the cross member passes.

5. A surgical instrument positioning system, comprising:

at least one support;

a cross member having at least one curved end portion, the at least one curved end portion being held by the at least one support such that the cross member is rotatable about an axis extending through a center of curvature of the at least one curved end portion of the cross member; and

at least one surgical instrument holder suspended from the cross member.

6. The system of claim 5, wherein the surgical instrument holder is positionable along a length of the cross member.

7. The system of claim 6, wherein the surgical instrument holder is positionable along a curved section of the cross member.

8. The system of claim 5, wherein movement of the surgical instrument holder along the length of the curved section of the cross member results in rotation of the surgical instrument holder about a point disposed on the axis passing through the center of curvature of the at least one curved end portion of the cross member.

9. The system of claim 5, wherein the surgical instrument holder is dimensioned to position a surgical instrument in a plane along which the axis extending through the center of curvature of the at least one curved end portion of the cross member passes.

10. The system of claim 5, wherein the cross member has only one curved end portion.

11. The system of claim 5, wherein the cross member has two opposite curved end portions.

12. The system of claim 10, wherein the cross member further comprises a straight portion disposed at an end opposite to the curved end portion.

13. The system of claim 12, wherein the straight portion is parallel to the axis passing through the center of curvature of the curved end portion of the cross member.

14. The system of claim 10, wherein the portion of the cross member disposed between the straight portion and the curved end portion is curved in a direction perpendicular to the curved end portion.

15. The system of claim 5, wherein the at least one support comprises a curved sleeve and wherein the at least one curved end portion of the cross member is slidably positionable within the curved sleeve.

16. The system of claim 10, wherein the at least one support comprises a single support holding the one curved end portion of the cross member.

17. The system of claim 11, wherein the at least one support comprises a pair of supports, each support holding one of the opposite curved end portions of the cross member.

18. The system of claim 12, further comprising:

a coronal marker positioned on the straight portion of the cross member.

19. The system of claim 5, further comprising:

an alignment target attached to one of the at least one curved end portions of the cross member.

20. The system of claim 19, wherein the alignment target indicates the position of the axis extending through the center of curvature of the at least one curved end portion of the cross member.

21. The system of claim 19, wherein the alignment target indicates the position of a plane along which the axis extending through the center of curvature of the at least one curved end portion of the cross member passes.

22. The system of claim 21, wherein the surgical instrument holder positions a surgical instrument in the plane passing through the axis extending through the center of curvature of the at least one curved end portion of the cross member.

23. The system of claim 5, wherein the at least one support adjustably positions the cross member in a vertical direction.

24. The system of claim 5, wherein the at least one support adjustably positions the cross member in a first horizontal direction.

25. The system of claim 5, wherein the at least one support adjustably positions the cross member in a second horizontal direction, the second horizontal direction being perpendicular to the first horizontal direction.

26. The system of claim 5, further comprising:

at least one alignment laser source attached to one of the curved end portions of the cross member.

27. The system of claim 26, wherein the at least one alignment laser source emits a laser beam in a plane passing through the center of curvature of the at least one curved end portion of the cross member.

28. The system of claim 27, wherein the at least one alignment laser source emits a laser beam in two planes passing through the center of curvature of the at least one curved end portion of the cross member.

29. The system of claim 28, wherein the two planes are perpendicular to one another.

30. The system of claim 29, wherein the surgical instrument holder positions a surgical instrument in one of the two planes.

31. The system of claim 30, wherein the surgical instrument holder positions the surgical instrument in the plane along which the axis extending through the center of curvature of the at least one curved end portion of the cross member passes.

32. The system of claim 11, further comprising:

a radiopaque height marker attached to one of the curved end portions of the cross member.

33. The system of claim 32, further comprising:

a radiopaque lordotic angle marker attached to the other of the curved end portions of the cross member.

34. The system of claim 33, wherein both the height marker and the lordotic angle marker are positioned on the axis extending through the center of curvature of the opposite curved end portions of the cross member.

35. The system of claim 5, wherein the surgical instrument holder supports an elongated surgical instrument such that the distal end of the surgical instrument is positioned at, proximal to, or pointing towards a point on the axis extending through the center of curvature of the at least one curved end of the cross member.

36. The system of claim 35, wherein the distal end of the surgical instrument remains positioned at, proximal to, or pointing towards the point on the axis passing through the at least one curved end of the cross member as the surgical instrument holder is moved to various positions along the length of the cross member.

37. The system of claim 5, wherein the surgical instrument is an operating cannula.

38. The system of claim 5, wherein the cross member is radio-lucent.

39. A method of positioning a surgical instrument in a selected plane passing through a patient's body, comprising:

positioning a patient under a cross member having a curved section which spans between two supports on either side of the patient, the cross member having opposite curved ends which are disposed in planes which are perpendicular to the curved center section, the opposite curved ends each being supported by one of the supports;

adjusting the position of the cross member such that an axis passing through the centers of curvature of the opposite ends of the cross member also passes through a surgical target region on the selected plane;

adjusting the position of the cross member such that a plane disposed parallel to the curved center section of the cross member is disposed in the selected plane; and

adjusting the position of a surgical instrument holder suspended from the cross member such that a surgical instrument suspended in the surgical instrument holder is positioned at a preferred angle in the selected plane.

40. A method of positioning a surgical instrument in a selected plane passing through a patient's body, comprising:

positioning the patient under a cross member having a surgical instrument holder suspended therefrom, the cross member having a curved end portion which is held by a support such that the cross member is rotatable about an axis extending through the center of curvature of the curved end portion of the cross member, the surgical instrument holder being positioned to hold a surgical instrument in a plane in which the axis extending through the center of curvature of the curved end portion of the cross member is disposed;

adjusting the position of the cross member such that the axis extending through the center of curvature of the at least one curved end portion of the cross member is disposed in the selected plane; and

rotating the cross member about the axis extending through the center of curvature of the at least one curved end portion of the cross member such that the plane in which the surgical instrument is held is aligned with the selected plane.

41. The method of claim 40, wherein adjusting the position of the cross member such that the axis extending through the center of curvature of the at least one curved end portion of the cross member is disposed in the selected plane comprises:

adjusting the vertical height of the cross member.

42. The method of claim 40, wherein adjusting the position of the cross member such that the axis extending through the center of curvature of the at least one curved end portion of the cross member is disposed in the selected plane comprises:

adjusting the cephal-caudal positioning of the cross member.

43. The method of claim 40, wherein adjusting the position of the cross member such that the axis extending through the center of curvature of the at least one curved end portion of the cross member is disposed in the selected plane comprises:

adjusting the lateral positioning of the cross member.

44. The method of claim 40, wherein adjusting the position of the cross member such that the axis extending through the center of curvature of the at least one curved end portion of the cross member is disposed in the selected plane comprises:

rotating the cross member about a vertical axis.

45. The method of claim 40, wherein adjusting the position of the cross member such that the axis extending through the center of curvature of the at least one curved end portion of the cross member is disposed in the selected plane comprises:

rotating the cross member about a horizontal axis.

46. The method of claim 40, wherein adjusting the position of the cross member such that the axis extending through the center of curvature of the at least one curved end portion of the cross member is disposed in the selected plane comprises:

viewing an image of the patient with a C-arm image intensifier in a direction along the selected plane; and

aligning the cross member to the C-arm image intensifier.

47. The method of claim 46, wherein aligning the cross member to the C-arm image intensifier comprises:

aligning a pair of radiopaque markers disposed on opposite ends of the cross member with the direction along the selected plane.

48. The method of claim 46, wherein aligning the cross member to the C-arm image intensifier comprises:

emitting a laser beam from a laser source attached to cross member; and

aligning the laser beam with a target on the C-arm image intensifier.

49. The method of claim 48, wherein the laser beam is directed along the axis extending through the center of curvature of the at least one curved end portion of the cross member.

50. The method of claim 48, wherein emitting a laser beam from a laser source attached to cross member comprises:

emitting a laser beam in two planes, wherein the planes intersect along the axis extending through the center of curvature of the at least one curved end portion of the cross member, and wherein the surgical instrument holder positions a surgical instrument in one of the two planes.

51. The method of claim 50, wherein rotating the cross member about the axis extending through the center of curvature of the at least one curved end portion of the cross member such that the plane in which the surgical instrument is held is aligned with the selected plane comprises:

aligning the plane in which the surgical instrument holder positions a surgical instrument with the selected plane.

52. The method of claim 46, wherein aligning the cross member to the C-arm image intensifier comprises:

emitting a laser beam from a laser source attached to the C-arm image intensifier; and

aligning the laser beam with a target attached to the cross member, wherein the target indicates the axis extending through the center of curvature of the at least one curved end portion of the cross member.

53. The method of claim 52, wherein emitting a laser beam from a laser source attached to the C-arm image intensifier comprises:

emitting a laser beam in two planes which intersect along the axis extending through the center of curvature of the at least one curved end portion of the cross member, wherein the surgical instrument holder positions a surgical instrument in one of the two planes.

54. The method of claim 53, wherein aligning the laser beam with a target attached to the cross member comprises:

aligning the plane in which the surgical instrument holder positions a surgical instrument with the selected plane.

55. The method of claim 40, further comprising:

adjusting the position of a surgical instrument holder along the cross member such that a surgical instrument suspended by the surgical instrument holder is positioned at a preferred angle in the selected plane.

56. The method of claim 40, further comprising:

aligning a coronal marker disposed on the cross member with a target region disposed in the selected plane.

57. A laser alignment system for an image intensifier, comprising:

at least one laser source which emits planar laser beams in first and second intersecting planes.

58. The laser alignment system of claim 57, wherein the at lease one laser source comprises:

two laser sources, the first emitting a laser beam in a first plane, and the second emitting a laser beam in a second plane.

59. The laser alignment system of claim 58, wherein neither of the two laser sources are positioned at the intersection of the first and second laser beam planes.

60 . The laser alignment system of claim 57, wherein the at lease one laser source comprises:

four laser sources mounted to an emitter on the image intensifier, wherein a first pair of the laser sources project a laser beam in a first plane and a second pair of the laser sources project a laser beam in a second plane.

61. The laser alignment system of claim 57, further comprising:

an image intensifier having an emitter and a receiver, wherein the alignment system is mounted to the image intensifier such that the first and second planes intersect along a line which passes both through the center of the emitter and through the center of the receiver.

62. The laser alignment system of claim 61, wherein the image intensifier comprises a C-arm image intensifier, and wherein the C-arm is mounted to rotate within the first plane such that the emitter and the receiver remain disposed within the first plane as the C-arm is rotated.